CLAIMS

1. A method of therapeutically or prophylactically treating graft versus host disease (GVHD), including the steps of (i) administering a pharmaceutically-effective amount of chaperonin 10 (cpn10) or a derivative of cpn10 to a donor animal or cell, organ or tissue obtained therefrom; and (ii) administering to a recipient animal a pharmaceutically-effective amount of cpn10 or a derivative of cpn10, to thereby delay, ameliorate, suppress or otherwise reduce one or more symptoms of GVHD following transplantation of the one or more cells, tissues or organs to the recipient animal.

2. The method of claim 1 wherein a pharmaceutically-effective amount of chaperonin 10 or a derivative of cpn10 is administered to a recipient animal both before and after step (ii).

3. The method of claim 1 wherein a pharmaceutically-effective amount of cpn10 or a derivative of cpn10 is administered to the donor and recipient animals for no more than 7 days prior to step (ii).

4. The method of claim 1 wherein a pharmaceutically-effective amount of cpn10 or a derivative of cpn10 is administered to the donor and recipient animals for 2 to 5 days prior to step (ii).

5. The method of claim 1 wherein a pharmaceutically-effective amount of cpn10 or a derivative of cpn10 is administered to the recipient animal for no more than 90 days after step (ii).

6. The method of claim 5 wherein a pharmaceutically-effective amount of cpn10 or a derivative of cpn10 is administered to the recipient animal for no more than 60 days after step (ii).

7. The method of claim 6 wherein a pharmaceutically-effective amount of cpn10 or a derivative of cpn10 is administered to the recipient animal for 10 to 30 days after step (ii).

8. The method of any one of claims 1 to 7 wherein said cpn10 protein has an amino acid sequence set forth in FIG. 1 (SEQ ID NO: 1).

9. The method of claim 1 wherein the pharmaceutically-effective amount of cpn10 or derivative of cpn10 administered to an animal is within the range 0.1-100 mg per kg/body weight.

10. The method of claim 9 wherein the pharmaceutically-effective amount of cpn10 or derivative of cpn10 administered to an animal is within the range 0.1-10 mg per kg/body weight.

11. The method of claim 1 wherein the cell, tissue or organ is, or is derived from, bone marrow.

12. The method of claim 1 wherein said animal is a mammal.

13. The method of claim 12 wherein said mammal is a human.

14. The method of claim 1 further including the step of administering to said donor animal and/or said recipient animal at least one other immunosuppressive agent selected from the group consisting of cyclosporin, tacrolimus, sirolimus, mycophenolate, mofetil and methotrexate.

15. The method of claim 1 further including the step of administering to said donor animal and/or recipient animal a steroid.

16. A method of inhibiting, suppressing or otherwise reducing TNFα production in an animal including the step of administering to said animal a pharmaceutically-effective amount of cpn10 or derivative of cpn10 to thereby

inhibit, suppress or otherwise reduce production of TNFα in said animal.

17. A method of inhibiting, suppressing or otherwise reducing TNFα production by one or more cells, tissues or organs obtained from an animal including the step of administering to said cells, tissues or organs a pharmaceutically-effective amount of cpn10 or derivative of cpn10 to thereby inhibit production of TNFα by said animal.

18. The method of claim 16 or claim 17 wherein said animal is a mammal.

19. The method of claim 18 wherein said mammal is a human.

20. A method of inducing, augmenting or otherwise increasing IL-10 production in an animal including the step of administering to said animal a pharmaceutically-effective amount of mammalian cpn10 or derivative of mammalian cpn10 to thereby induce, augment or otherwise increase production of IL-10 in said animal.

21. A method of inducing, augmenting or otherwise increasing IL-10 production by one or more cells, tissues or organs obtained from an animal including the step of administering to said cells, tissues or organs a pharmaceutically-effective amount of mammalian cpn10 or derivative of mammalian cpn10 to thereby induce production of IL-10 by said animal.

22. The method of claim 20 or claim 21 wherein said animal is a mammal.

23. The method of claim 22 wherein said mammal is a human.

24. A pharmaceutical composition for use according to the method of claims 1, 16 or 17 comprising a pharmaceutically-effective amount of mammalian cpn10 or a derivative of mammalian cpn10, and a pharmaceutically-acceptable carrier, excipient or diluent.

25. The pharmaceutical composition of claim 24 further comprising at least

one other immunosuppressive agent.

26. The pharmaceutical composition of claim 25 wherein the other immunosuppressive agent is an immunosuppressive drug or a specific antibody directed against B or T lymphocytes or surface receptors that mediate their activation.

27. The pharmaceutical composition of claim 25 wherein the other immunosuppressive agent is any one of cyclosporin, tacrolimus, sirolimus, mycophenolate mofetil and methotrexate.

28. The pharmaceutical composition of any one of claims 24 to 27 further comprising a steroid.

29. The pharmaceutical composition of any preceding claim wherein cpn10 has an amino acid sequence set forth in FIG. 1 (SEQ ID NO: 1).